

Claims

- [c1] We claim:
- 1.A method for detecting an object, comprising:
emitting a light pulse;
receiving a reflection of said light pulse;
indicating a presence of the object from said received light pulse; and,
adjusting sensitivity of said indicating step based on an elapsed time from said emission.
- [c2] 2.The method of claim 1 wherein said adjusting step increasing said sensitivity as said elapsed time from said emission increases.
- [c3] 3.The method of claim 2 wherein said sensitivity is increased by decreasing a signal threshold over said elapsed time, said indicating step including:
comparing a power level of said received light pulse to said signal threshold;
and,
determining said presence of the object when said power level is greater than said signal threshold.
- [c4] 4.The method of claim 2 wherein said sensitivity is increased by increasing a signal gain over said elapsed time, said indicating step including:
multiplying said power level of said received light pulse by said gain to obtain a first value; and,
determining said presence of the object when said first value is greater than a predetermined threshold.
- [c5] 5.The method of claim 1 wherein sensitivity has a first sensitivity value at a first elapsed time and a second sensitivity value at a second elapsed time after said first elapsed time, said second sensitivity being greater than said first sensitivity.
- [c6] 6.The method of claim 1 wherein said emitting step includes:
transmitting said light pulse to a polymeric light reflector; and,
reflecting said light pulse outwardly from said light reflector.
- [c7] 7.A method for detecting an object, comprising:

emitting a light pulse;
receiving a reflection of said light pulse;
indicating a presence of the object from said received light pulse; and,
increasing sensitivity of said indicating step when said received light pulse is
received at an elapsed time from said emission that is greater than a
predetermined time.

[c8] 8.The method of claim 7 wherein said emitting step includes:
transmitting said light pulse to a polymeric light reflector; and,
reflecting said light pulse outwardly from said light reflector.

[c9] 9.A method for detecting an object, comprising:
emitting a light pulse;
receiving a reflection of said light pulse;
indicating a presence of the object from said received light pulse; and,
decreasing sensitivity of said indicating step when said received light pulse is
received at an elapsed time from said emission that is less than a
predetermined time.

[c10] 10.The method of claim 9 wherein said emitting step includes:
transmitting said light pulse to a polymeric light reflector; and,
reflecting said light pulse outwardly from said light reflector.

[c11] 11.A method for detecting an object, comprising:
emitting a plurality of light pulses;
receiving a reflection of said light pulses;
indicating a presence of the object from said received light pulses; and,
adjusting sensitivity of said indicating step based on a travel time of said
pulses.

[c12] 12.The method of claim 11 wherein said emitting step includes:
transmitting said plurality of light pulses to a polymeric light reflector; and,
reflecting said light pulses outwardly from said light reflector.

[c13] 13.A system for detecting an object, comprising:
a light source generating a light pulse, said light pulse being emitted;

a light detector configured to receive a reflection of said pulse; and,
a controller operably connected to said light source and said detector, said controller configured to indicate a presence of the object from said received light pulse, said controller further configured to adjust sensitivity for detecting the object based on an elapsed time from said emission.

- [c14] 14.The system of claim 13 further comprising a polymeric light reflector receiving said light pulse from said light source and reflecting said light pulse toward the object.
- [c15] 15.The system of claim 13 wherein said light source comprises a near infrared diode laser.
- [c16] 16. The system of claim 13 wherein said light detector comprises a near infrared light detector.
- [c17] 17.The system of claim 13 wherein said sensitivity is adjusted to have a first sensitivity value at a first elapsed time and a second sensitivity value at a second elapsed time after said first elapsed time, said second sensitivity being greater than said first sensitivity.
- [c18] 18.An article of manufacture, comprising:
a computer storage medium having a computer program encoded therein for detecting an object, said computer storage medium comprising:
code for inducing a light transmitter to emit a light pulse;
code for storing values indicative of a reflection of said light pulse; and,
code for indicating a presence of the object from said stored values; and,
code for adjusting sensitivity for detecting the object based on elapsed time from said emission.